

**DISK DRIVE DISABLING BEMF DETECTION WINDOW TO REDUCE ACOUSTIC
NOISE WHILE USING WEDGE SPINDLE SPEED CONTROL**

ABSTRACT OF THE DISCLOSURE

A disk drive is disclosed employing either back electromotive force (BEMF) spindle speed control mode or wedge spindle speed control mode. A BEMF detector monitors the BEMF voltage generated by the windings of the spindle motor to generate a BEMF speed error. The BEMF spindle speed control mode is used to spin up the disk to an operating speed, and the wedge spindle speed control to maintain the disk at the operating speed. While in the wedge spindle speed control mode, a BEMF detection window is disabled to reduce acoustic noise.